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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/036,302

11/09/2001

Charles L. Lindsay

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11/15/2004

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EXAMINER

NGUYEN, SON XUAN

ART UNIT

PAPER NUMBER

2664

DATE MAILED: 11/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/036,302

Applicant(s)

LINDSAY ET AL.

Examiner

SON X. NGUYEN

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11/9/01.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 30-49 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 30-49 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This communication is in response to the preliminary amendment of 11/09/01. Claims 1-29 were cancelled, and claims 30-49 are currently pending. This application is one of divisional applications (09/503,978; 10/036,302) of 09/122,565, now Patent Number 6,301,242. It is also noted that both divisional applications pursue the same invention (group III: claims 30-34), which was restricted from the early application '565. Thus, the double patenting rejection was made not to the early application '565, but to the divisional application '978, now Patent Number 6,212,173. Detailed action is follows:

Claim Objections

2. Claims 35, 41, 48 are objected to because of the following informalities:
For antecedent basis, it's suggested to make a correction to the following claims:
Claim 35, line 8, change "said time slot" to "a time slot".
Claim 41, line 8, change "said time slot" to "a time slot".
Claim 48, line 8, change "said time slot" to "a time slot".
Appropriate correction is required.

Double Patenting

3. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to

identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

4. Claims 30-34 are rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 1-5 of prior U.S. Patent No. 6,212,173, respectively. This is a double patenting rejection. The comparison of the claims is shown below:

Instant Application

30. In a time division multiple access communication system in which a time frame is divided into a plurality of time slots, a method of communication comprising the steps of: communicating between a user station and a first base station; and exchanging a plurality of control traffic messages between said user station and second base station during multiple time slots of a single time frame to handing off said user station from said first base station to a second base station.

U.S Patent

1. In a time division multiple access communication system in which a time frame is divided into a plurality of time slots, a method of communication comprising the steps of: communicating between a mobile station and a first base station; and handing off communication from said first base station to a second base station, said step of handing off communication comprising the step of exchanging a plurality of control traffic messages between said mobile station and said

second base station during multiple time

31. The method of claim 30, further comprising the step of establishing a duplex communication link between said user station and said second base station after said step of exchanging said plurality of control traffic messages.

32. The method of claim 31, further comprising the step of assigning a time slot for bearer communication between said user station and said base station in response to said step of exchanging said plurality of control traffic messages.

33. The method of claim 32, further comprising the step of transmitting bearer traffic messages between said user station and said second base station during said time slot assigned for bearer communication.

slots of a single time frame.

2. The method of claim 1, further comprising the step of establishing a duplex communication link between said mobile station and said second base station as a result of said step of exchanging said plurality of control traffic messages.

3. The method of claim 2, further comprising the step of assigning a time slot for bearer communication to said mobile station as a result of said step of exchanging said plurality of control traffic messages.

4. The method of claim 3, further comprising the step of exchanging bearer traffic messages between said mobile station and said second base station during said time slot assigned for bearer communication.

34. The method of claim 30, wherein said step of exchanging a plurality of control traffic messages between said user station and said second base station comprises the step of transmitting a next slot pointer in each of said plurality of control traffic message transmitted from said second base station to said user station.

5. The method of claim 1, wherein said step of exchanging a plurality of control traffic messages between said mobile station and said second base station during multiple time slots of a single time frame comprises the step of transmitting a next slot pointer in each control traffic message transmitted from said second base station to said mobile station.

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5. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

6. Claims 36-49 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-5 of U.S. Patent No. 6,212,173. Although the conflicting claims are not identical, they are not patentably distinct from each other because claims 30, 36 and 42 of the instant application merely broaden the scope of the claim 1 of the Patent by eliminating the elements and their functions (i.e. exchanging traffic control message over multiple time slots of a single time frame) of the claims. It has been held that the omission an element and its function is an obvious expedient if the remaining elements perform the same function as before. *In re Karlson*, 136 USPQ 184 (CCPA). Also note *Ex parte Rainu*, 168 USPQ 375 (Bd.App.1969); omission of a reference element whose function is not needed would be obvious to one skilled in the art.

7. Claim 35 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 of U.S. Patent No.

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6,212,173. The limitation of transmitting control traffic messages during user interval and base interval of a single time frame is not patentable distinct and would have been obvious to one skilled in art.

8. Claim 49 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 of U.S. Patent No.

6,212,173. The limitation of terminating call between user station and a network through first base station and establishing call between user station and network through second base station is not patentable distinct and would have been obvious to one skilled in art.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

The changes made to 35 U.S.C. 102(e) by the American Inventors

Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before

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November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

10. Claims 36-39, 41-45, 47-48 rejected under 35 U.S.C. 102(e) as being anticipated by Anderson et al (U.S 6,161,013) hereinafter referred to as Anderson.

Regarding claims 36 and 41, Anderson discloses in a time division multiple access (TDMA) communication system, comprising a plurality of base stations (Figure 1C) generating series of time frame each divided into a plurality of time slots for carrying control traffic messages in upstream and downstream directions (line 59-64 of column 6 and Figure 2), wherein: said user station communicated with a first one of said plurality of base station (line 30-35 of column 3); said user station exchanging a plurality of control traffic messages (line 16-22 of column 12) with a second one while communicating with said first base station; and said user station communicates with said second base station and discontinues communicating with said first base station after exchanging said plurality of control traffic messages with said second base station (line 37-41 of column 16).

Regarding claim 37, Anderson discloses the TDMA communication system of claim 36, wherein said second base station establishes a duplex communication link (line 65-68 of column 12 and line 1-5 of column 13) with said user station in response to said user station exchanging said plurality of control traffic messages with said second base station.

Regarding claim 38, Anderson disclosed the TDMA communication system

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of claim 37, wherein said second base station further assigns a time slot (line 55-56 of column 12) for bearer communication between said user station and said second base station in response to said user station exchanging said plurality of control traffic messages with said second base station.

Regarding claim 39, Anderson disclosed the TDMA communication system of claim 37, wherein said user station and said second base station further transmit bearer traffic messages there between said time slot assigned for bearer communication (line 1-5 of column 13).

Regarding claims 42 and 48, Anderson disclosed in a communication system that establishes a continuous sequence of time frame each divided into a plurality of time slots for carrying control traffic messages in upstream and downstream directions (line 59-64 of column 6), a communication process comprising the step of: communicating between a user station and a first base station using a first plurality of time slots (line 66-67 of column 6); and exchanging a plurality of control traffic messages between said user station and a second base station during a second plurality of time slots (line 6-8 of column 7); communicating between said user station and said second base station using said second plurality of time slots (line 9-16 of column 7); and discontinuing communication between said user station and said first base station (line 37-41 of column 16).

Regarding claim 43, Anderson discloses the communication process of claim 42, further comprising the step of establishing a duplex communication link (line 65-68 of column 12 and line 1-5 of column 13) between said user station

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and said second base station after said step of exchanging a plurality of control traffic messages.

Regarding claim 44, Anderson disclosed the communication process of claim 43, further comprising the step of assigning a time slot (line 55-56 of column 12) in said second plurality of time slots for bearer communication between said user station and said second base station in response to said step of exchanging a plurality of control traffic messages.

Regarding claim 45, Anderson disclosed the communication process of claim 44, further comprising step of transmitting bearer traffic messages there between said user station and said second base station during said time slot assigned for bearer communication (line 1-5 of column 13).

Regarding claim 47, Anderson disclosed the communication process of claim 46, wherein said step of exchanging a plurality of control traffic messages between said user station and said second base station further includes the step of transmitting a subsequent one of said plurality of control traffic messages transmitted from said user station to said second base station in subsequent time slot (line 6-8 of column 7).

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to

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be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 40,46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson et al (U.S 6,161,013) in view of Ketseoglou (U.S 6,130,886);

Regarding claims 40, Anderson disclosed the TDMA communication system of claim 36.

Anderson, however, fails to disclose at least one of said plurality of control traffic messages transmitted to said user station includes a next slot pointer.

Ketseoglou teaches at least one of said plurality of control traffic messages transmitted to said user station includes a next slot pointer (line 39-40 of column 11 and Figure 11A).

It would have been obvious to one ordinary skill in the art at the time the invention was made to modify Anderson's method to incorporate a setup where control traffic messages includes a next slot pointer, the motivation being that using next slot pointer would indicate the next time slot for control traffic messages.

Regarding claims 46, Anderson disclosed the communication process of claim 42.

Anderson, however, fails to disclose a next slot pointer in one of said plurality of control traffic messages transmitted from said second base station to said user station, said next slot pointer pointing to a subsequent time slot in said second plurality of time slots.

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Ketseoglou teaches next slot pointer in one of said plurality of control traffic messages (line 39-40 of column 11 and Figure 11A).

It would have been obvious to one ordinary skill in the art at the time the invention was made to modify Anderson's process to incorporate a setup where control traffic messages includes a next slot pointer, the motivation being that using next slot pointer would indicate the next time slot for control traffic messages.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a) Anderson et al. (U.S 6,088,590), Method and system for mobile controlled handoff and link maintenance in spread spectrum communication.

b) Kobylinski et al (U.S 6,044,272), Mobile assisted handoff system and method.

c) Pierre (U.S 5,711,003), Method for determining timing advance during handover.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to SON X. NGUYEN whose telephone number is 571-272-6048. The examiner can normally be reached on 8-5.

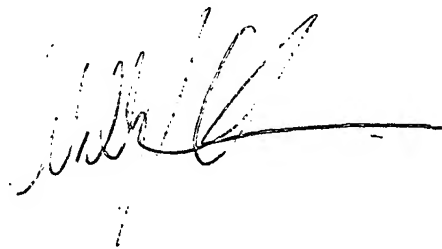
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on 571-272-3139. The fax

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phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

11/02/04
Son X. Nguyen

A handwritten signature in black ink, appearing to read 'Son X. Nguyen', with a long horizontal line extending to the right.